
ENVIRONMENTAL Fact Sheet



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WMD-SW-11

1998

Recycling Newspaper

Newspaper in Solid Waste

Weight and Volume -- Over 13.2 million tons of newspaper were discarded in the U.S. in 1995 which constituted about 6.5 percent of the nation's total quantity of municipal solid waste (MSW). About 90 percent of all newspaper is discarded with residential wastes, so that newspaper constitutes nearly 10 percent of the residential waste stream. Commercial and industrial sources contribute the balance of newspaper discards.

Disposal -- Newspaper is readily degradable in soil or compost. Like all materials, however, newspaper degrades very slowly in landfills, because landfills exclude the oxygen and moisture required for biodegradation. Newspaper burns well in waste-to-energy incinerators, producing little ash under normal operating conditions. The heat released by burning newspaper is about 7,500 British Thermal Units (BTU) per pound, compared to about 4,500 BTU/pound for mixed MSW. Until recently, many newspaper inks contained lead and other hazardous constituents generating environmental concerns for both landfill and incinerator disposal. These toxic constituents have been rapidly phased out, however, with the result that they now pose little or no concern.

Newspaper Recycling

Collection, Processing, and Storage -- Along with scrap metal, newspaper is a commodity with a very long recycling history. For decades, local organizations raised funds by collecting and selling newspaper to wastepaper brokers. Currently, it is estimated that over half of all newspaper consumed in the United States is recycled.

Wastepaper brokers recognize many different grades of newsprint ("newsprint" is the paper itself; "newspaper" is the printed product). Most communities recycle either a "Number 6 blend", which can contain significant volumes of other papers, such as, brown shopping bags, junk mail, office paper, telephone directories, envelopes, or "Number 8 news", which has higher quality specification, e.g., newspaper only. The prices paid by brokers vary by grade. Grades with a smaller proportion of mixed papers or other contaminants receive higher prices.

Newsprint can be marketed either baled or unbaled. Baled product is easier to handle, and generally commands a higher price. Contamination with food, broken glass, moisture, or other foreign materials is a concern for recyclers. In addition, newspaper deteriorates with prolonged storage or exposure to sunlight and moisture; consequently it must be moved to markets relatively quickly.

Manufacturing -- Newspapers are readily recyclable, and can be remanufactured back into newsprint or into any of a number of other papers, such as boxboard, newsletter stock. Newspapers that are reprocessed into new newsprint are "deinked" using one of two common technologies: floatation or washing. Although recycled newsprint has many desirable characteristics, e.g., flexibility, good opacity, resistance to temperature and humidity changes, the recycling process tends to reduce average fiber length (which largely determines the strength of finished papers), with the result that some virgin pulp is needed for almost all newsprint production. Environmentally, recycling processes consume less energy and water than virgin paper manufacture, generate smaller releases to air and water, and require less severe bleaching.

In addition to remanufacturing into paper, newsprint can be reprocessed into many other products. These include, for example, insulation, tarpaper, roofing shingles, and animal bedding. One manufacturer in New Hampshire produces blown insulation from recycled newsprint, while a number of New Hampshire farmers use shredded newsprint for animal bedding. Mixed with manure, this newspaper is ultimately composted, either before or after it is spread onto fields and pastures.

Markets for Recycled Newspaper -- Local recycling programs for newspaper have proliferated, and end-use markets for recycled newsprint have begun to expand. As with all recyclable materials, markets and prices tend to fluctuate, based on supply and demand. New manufacturing capacity for recycled newsprint has come on line, as manufacturers have responded to both the large available supplies of newspaper and to increasing demand for recycled newsprint. A significant factor in this new demand growth has been a large number of legislative mandates and public/private voluntary agreements to expand recycled newsprint consumption. New Hampshire has been a leader in this area. In 1990, New Hampshire's eight daily newspaper publishers signed a voluntary agreement with the state to consume increasing quantities of recycled newsprint, culminating with a 40 percent recycled fiber target by the year 2000. With this and similar agreements in place, it is predicted that markets for recycled newspaper will be strong through the 1990s, and that demand may begin to outgrow supplies in some regions.

For More Information

Additional information on recycling newspaper and other materials in New Hampshire is available from: Recycling Coordinator, NH Department of Environmental Services, Waste Management Division, 29 Hazen Drive, Concord, NH 03301, Telephone: 603-271-2900, TDD Access: Relay NH 1-800-735-2964.